



# UNITED STATES PATENT AND TRADEMARK OFFICE

CLC  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/694,243

10/27/2003

Gang Bao

17625-0058

3739

29052 7590 10/06/2005

SUTHERLAND ASBILL & BRENNAN LLP  
999 PEACHTREE STREET, N.E.  
ATLANTA, GA 30309

EXAMINER

JONES, DAMERON LEVEST

ART UNIT

PAPER NUMBER

1618

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/694,243

Applicant(s)

BAO ET AL.

Examiner

D. L. Jones

Art Unit

1618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-94 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-94 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |  |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

500

## **RESTRICTION INTO GROUPS**

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-4, 8-31, and 37-52, drawn to a probe composition wherein the targeting probe/first targeting probe is a nucleic acid, classified in class 424, subclass 1.73.
  - II. Claims 1, 5, 8-29, 32-34, and 36-52, drawn to a probe composition wherein the targeting probe/first targeting probe is a polypeptide or peptide, classified in class 424, subclass 1.69.
  - III. Claims 1, 6, 8-26, 32, 35, and 37-52, drawn to a probe composition wherein the targeting probe/first targeting probe is an antibody, classified in class 424, subclass 1.49.
  - IV. Claims 1, 7, 8-26, and 36-52, drawn to a probe composition wherein the targeting probe/first targeting probe is a ligand, classified in class 534, subclass 7.
  - V. Claims 1, 7, 8-26, and 36-52, drawn to a probe composition wherein the targeting probe/first targeting probe is an aptamer, classified in class 424, subclass 1.11.
  - VI. Claims 53-69, drawn to a method of determining the expression of a subject's nucleic acid as set forth in independent claim 53, classified in class 424, subclass 9.2.

Art Unit: 1618

- VII. Claims 70-86, drawn to a method of determining expression of a subject's polypeptide as set forth in independent claim 70, classified in class 424, subclass 9.2.
- VIII. Claims 87-94, drawn to a method of producing a magnetic probe composition as set forth in independent claim 87, classified in class 424, subclass 9.2.
- IX. Claims 1, 8-29, and 37-52, drawn to a probe composition wherein the targeting probe/first targeting probe is not encompassed by Groups I, II, III, IV, or V above, classified in class 424, subclass 1.11+.

**Note:** Claims appearing in more than one group will only be examined to the extent that they read on the elected invention.

2. The inventions are distinct, each from the other because of the following reasons: Inventions (I and VI), (II and VI), (III and VI), (IV and VI), (V and VI), (IX and VI), (I and VII), (II and VII), (III and VII), (IV and VII), (V and VII), (IX and VII), (I and VIII), (II and VIII), (III and VIII), (IV and VIII), (V and VIII), and (IX and VIII) are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the methods may be used with various targeting probes/first targeting

Art Unit: 1618

probes. Thus, while some of the inventions classify in the same area, a separate search of the art is necessary since the limitations present in each group are different. Hence, a burdensome search is required in order to thorough search each group and its various limitations.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

#### **ELECTION OF SPECIES**

4. Claims 1-94 are generic to a plurality of disclosed patentably distinct species comprising various probe compositions having a targeting probe/first targeting probe. In particular, the probe may be a nucleic acid (A), polypeptide (B), peptide (C), aptamer (D), ligand (E), antibody (F), or some other probe other than A, B, C, D, E, F. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement is traversed.

**Note:** Applicant is respectfully requested to elect a single disclosed species from within the elected group above. Applicant is requested to identify each of the following parameters, if appropriate for the elected group above: detectable moiety, delivery ligand/first delivery ligand, biocompatible coating, ligand, peptide, aptamer, polypeptide, nucleic acid, magnetic nanoparticle, metal coating, second delivery ligand, targeting probe/first targeting probe, second detectable moiety, second magnetic nanoparticle

Art Unit: 1618

probe composition, magnetic nanoparticle probe pairs, whether the method is performed in vivo or in vitro, mode of introducing the composition, whether it is desired to detect the presence of a virus, the presence of a cancer, the presence of a disease, alter the expression pattern of the target in response to an external stimulus, and the stimulus of interest.

5. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

6. Due to the complexity of the restriction requirement, a telephone call was not made to request an oral election to the above restriction requirement.

7. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement is traversed (37 CFR 1.143).

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one


Art Unit: 1618

or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. L. Jones whose telephone number is (571) 272-0617. The examiner can normally be reached on Mon.-Fri., 6:45 a.m. - 3:15 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman Page can be reached on (571) 272-0602. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
D. L. Jones  
Primary Examiner  
Art Unit 1618

October 3, 2005